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(54) AGENT FOR IMPROVING UNUNIFORMITY OF SKIN AND COSMETIC CONTAINING THE SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a composition containing the essence of a plant, capable of improving the ununiformity of skin and improving and preventing skin darkness caused by ageing, etc., and useful for cosmetics, etc.

SOLUTION: This agent for improving the ununiformity of skin contains the essences of one or more kinds of plants selected from among *Betula pendula* Roth., *Zizyphus jujuba* Mill., *Rosa multiflora* Thun., *Hypericum erectum* Thun., *Hypericum perforatum* L., *Salvia officinalis* L., *Paeonia lactiflora* Pall, *Urtica thunbergiana* Sie., and *Nelumbonaceae* *Nelumbo*. The essence includes the plant itself, its processed product and/or solvent extract or solvent-removed extract obtained by drying, grinding, finely cutting, etc., a part or all parts of the plant, and their fractions. A polar solvent such as 1,3-butanediol is used for the solvent extraction. The cosmetic contains the skin ununiformity-improving agent in an amount of 0.001-10wt.%, and may be prepared into a basic cosmetic, a make-up cosmetic, a hair cosmetic, a nail-beautifying agent, a cleanser, a bathing agent, etc.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the cosmetics containing the ununiformity improvement agent of the suitable skin concerned to carry out improvement prevention of the dullness resulting from the ununiformity improvement agent of the skin, aging, etc.

[0002]

[Description of the Prior Art] It has the wish said that he wants for anyone to see more beautifully than others. For this reason, the mechanism for looking beautifully was studied and the various cosmetics based on that result have been developed. For example, the cosmetics which the cosmetics containing moisturizing components, such as hyaluronate sodium, can raise the amount of moisture maintenance of the skin, can prevent formation of a wrinkling, and contain an ascorbic-acid derivative can prevent controlling generation of melanin and the color of the skin becoming black. The present condition is that the phenomenon called so-called "dullness" into such technological innovation is not clarified more, and the mechanism is not developed yet in it by the cosmetics to improve. The "dullness" said here is in the condition that there is no sensibility which redness decreased, and the color of the skin looked dark and was lively, and sag is sensed, increasing as the badness and age of condition are piled up is already known, and it does not want to be in such [anyone] a condition. Although it can be improved by "dullness" by taking a measure by the cosmetics developed until now, to the forge fire by which whitening cosmetics suppress generation of melanin and maintain whiteness at the forge fire which moisturization cosmetics improve a wrinkling or prevent, the effectiveness is not large. This is said to be because for "dullness" to differ in these physiological phenomena and classes, and a cause.

[0003] Under such a situation, this invention person etc. found out that "dullness" originated in the heterogeneity of the fine structure of the skin, as a result of repeating research wholeheartedly in quest of the cause of "dullness." However, the present condition was not known at all about the material which improves the heterogeneity of such the skin.

[0004] Improving "dullness" that the essence of the vegetation shown below improves the heterogeneity of such the skin on the other hand and its result was not known at all. The Betulaceae birch (*Betula pendula* Roth.), The department zizyphi fructus of a jujube tree (*Zizyphus jujuba* Mill.), Rosaceae Rose Fruit (*Rosa multiflora* Thun.), The Guttiferae St. John's wort (*Hypericum erectum* Thun.), The Guttiferae SEIYOU St. John's wort (*Hypericum perforatum* L.), The Lamiaceae SAGE (*Salvia officinalis* L.), the Paeoniaceae peony (*Paeonia lactiflora* Pall), the Urticaceae nettle (*Urtica thunbergiana* Sie. or *Urtica dioica* L.) and Nelumbonaceae -- a lotus (Nelumbonaceae *Nelumbo*)

[0005]

[Problem(s) to be Solved by the Invention] This invention is performed under this situation and let it be a technical problem to offer the material which improves the heterogeneity of the skin.

[0006]

[Means for Solving the Problem] As a result of this invention person's etc. repeating research wholeheartedly in quest of the cause of "dullness" in view of this situation, the heterogeneity of the skin

found out that it was a big element. As a result of repeating the further research in quest of the matter which has the operation which improves the heterogeneity of the skin based on this knowledge, such an operation was found out to the essence of the plant body shown below. Furthermore, when examination was repeated, it checks that the prominent effect which improves "dullness" is in the cosmetics containing these compounds, and came to complete invention. Hereafter, this invention is explained to a detail focusing on the gestalt of implementation of invention. The Betulaceae birch (*Betula pendula* Roth.), The department zizyphi fructus of a jujube tree (*Zizyphus jujuba* Mill.), Rosaceae Rose Fruit (*Rosa multiflora* Thun.), The Guttiferae St. John's wort (*Hypericum erectum* Thun.), The Guttiferae SEIYOU St. John's wort (*Hypericum perforatum* L.), The Lamiaceae SAGE (*Salvia officinalis* L.), the Paeoniaceae peony (*Paeonia lactiflora* Pall), the Urticaceae nettle (*Urtica thunbergiana* Sie. or *Urtica dioica* L.) and Nelumbonaceae -- a lotus (Nelumbonaceae *Nelumbo*)

[0007]

[Embodiment of the Invention]

(1) The heterogeneity improvement agent of the skin of heterogeneity improvement agent this invention of the skin of this invention consists of essence of the vegetation shown below. Essence is the generic name of the plant body itself, the workpiece with which desiccation, grinding, a fragment, etc. carried out some or all of a plant body, some or all of a plant body, the solvent extraction object of those workpieces or its solvent removal object, and also those fractionation objects here. The most desirable thing is the solvent extraction object or its solvent removal object of some or all of a plant body, or those workpieces among these essence. As a solvent used for solvent extraction, a polar solvent is desirable, and polyhydric alcohol, such as ketones, such as halogenated hydrocarbon, such as ether, such as nitril, such as ester, such as alcohols, such as a methanol and ethanol, ethyl acetate, and methyl formate, and an acetonitrile, diethylether, and a tetrahydrofuran, chloroform, and a methylene chloride, an acetone, and a methyl ethyl ketone, 1,3-butanediol, and a glycerol, and water can illustrate preferably as a polar solvent, for example. Even if it uses these independently and they mix and use two or more sorts, they are not cared about. An among these more desirable thing is the approach of extracting using one sort chosen from alcohols, polyhydric alcohol, and water, or two sorts or more. That what is necessary is just to carry out according to the usual approach, the approach of an extract adds a 1 to 10 times as many solvent as this to the workpiece of a plant body or a plant body, and if it is a room temperature, if it is the temperature near the boiling point, it should just be immersed several days for several hours. Stirring can also be added suitably. The extract obtained in this way may be used as it is, and even if it removes a solvent by reduced pressure distilling out etc. or it refines and uses it by the silica gel column chromatography, liquid-liquid extraction, etc., it is not cared about. Below, the example of manufacture is shown. The Betulaceae birch (*Betula pendula* Roth.), The department zizyphi fructus of a jujube tree (*Zizyphus jujuba* Mill.), Rosaceae Rose Fruit (*Rosa multiflora* Thun.), The Guttiferae St. John's wort (*Hypericum erectum* Thun.), The Guttiferae SEIYOU St. John's wort (*Hypericum perforatum* L.), The Lamiaceae SAGE (*Salvia officinalis* L.), the Paeoniaceae peony (*Paeonia lactiflora* Pall), the Urticaceae nettle (*Urtica thunbergiana* Sie. or *Urtica dioica* L.) and Nelumbonaceae -- a lotus (Nelumbonaceae *Nelumbo*)

[0008] [Example 1 of manufacture] After adding 1,3-butanediol 1kg to the leaf of a birch, a bark, and 1kg of xylem and heating at 90 degrees C for 3 hours, insoluble matter was carried out the ** exception and 0.8kg of heterogeneity improvement agents 1 of the skin was obtained.

[0009] [Example 2 of manufacture] 10l. of ethanol water solutions was added to the leaf of a birch, a bark, and 1kg of xylem 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 2 of the 68g skin was obtained.

[0010] [Example 3 of manufacture] 10l. of ethanol water solutions was added to 1kg of dry matters of the fruit of zizyphi fructus 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 3 of the 430g skin was obtained.

[0011] [Example 4 of manufacture] 10l. of ethanol water solutions was added to 1kg of dry matters of

the fruits of Rose Fruit 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 4 of the 180g skin was obtained.

[0012] [Example 5 of manufacture] 10l. of ethanol water solutions was added to 1kg of entire plants of a St. John's wort 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 5 of the 144g skin was obtained.

[0013] [Example 6 of manufacture] 10l. of ethanol water solutions was added to 1kg of entire plants of a SEIYOU St. John's wort 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 6 of the 138g skin was obtained.

[0014] [Example 7 of manufacture] 10l. of ethanol water solutions was added to 1kg of roots of a peony 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 7 of the 251g skin was obtained.

[0015] [Example 8 of manufacture] 10l. of ethanol water solutions was added to 1kg of leaves of a nettle 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 8 of the 165g skin was obtained.

[0016] [example 9 of manufacture] Nelumbonaceae -- ethanol 10l. was added to 1kg of rhizomes of a lotus 50%, it flowed back for 2 hours, insoluble matter was carried out the ** exception, the solvent was distilled out, and the heterogeneity improvement agent 9 of the 123g skin was obtained.

[0017] (2) It is characterized by the cosmetics of cosmetics this invention of this invention containing the heterogeneity improvement agent of the above-mentioned skin. The heterogeneity improvement agent of the skin may make a seed contain uniquely, and may make two or more sorts contain. If the classes of cosmetics of this invention are cosmetics usually known generally, special limitation is not received, for example, baths, such as charges of washing, such as nail enamels, such as hair cosmetics, such as makeup cosmetics, such as basic cosmetics, such as a cream and a milky lotion, foundation, and a lip color, hair oil, a hair tonic, a shampoo, and a rinse, a manicure, and a pedicure, a body shampoo, and soap, a bus bubble, and bus essence, etc. can illustrate it preferably. This is because the heterogeneity improvement agent of the skin of this invention can improve not only the heterogeneity of the skin but the heterogeneity of the body organization near the skin, so a desirable operation can be discovered also on the hair and the pawl of hair. It is 0.001 - 10 % of the weight, the desirable content of the heterogeneity improvement agent of the skin in the cosmetics of this invention has 0.01 - 5 more desirable % of the weight, and its 0.05 - 1 % of the weight is still more desirable. The cosmetics of this invention can contain the arbitration component usually used by cosmetics in addition to the heterogeneity improvement agent of these skins: As such an arbitration component, thickeners, such as polyhydric alcohol, such as fatty acids, such as higher alcohol, such as triglyceride, such as ester, such as hydrocarbons, such as vaseline and a micro crystallin wax, jojoba oil, and spermaceti, beef tallow, and olive oil, cetanol, and oleyl alcohol, stearin acid, and oleic acid, a glycerol, and 1,3-butanediol, a nonionic surface active agent, an anionic surface active agent, a cationic surface active agent, an amphoteric surface active agent, ethanol, and Carbopol, antiseptics, an ultraviolet ray absorbent, an anti-oxidant, coloring matter, and fine particles can be illustrated. The cosmetics of this invention can be manufactured by processing these raw materials by the usual approach. The cosmetics of this invention have the operation which improves the heterogeneity of the skin and carries out improvement prevention of the dullness. Therefore, the cosmetics of this invention can show those who make up their face more youthfully than real age, and are suitable also as cosmetics for the prevention improvement of aging.

[0018]

[Example]

Face toilet was created according to the [example 1] following formula. That is, the heating dissolution of the formula component was carried out at 80 degrees C, stirring cooling was carried out and face toilet was obtained.

1,3-butanediol 5 Weight section glycerol 5 Weight section hyaluronate sodium The 0.1 weight section methylparaben The heterogeneity improvement agent 1 of 0.1 weight **** 0.1 weight section

benzalkonium chloride 0.1 weight section sodium dihydrogenphosphate 0.1 weight section ethanol 7 Weight section POE (60) hydrogenated castor oil 0.1 weight sections perfume 0.1 weight **** The 82.3 weight sections [0019] Face toilet was created according to the [example 2] following formula. That is, the heating dissolution of the formula component was carried out at 80 degrees C, stirring cooling was carried out and face toilet was obtained.

1,3-butanediol 5 Weight section glycerol 5 Weight section hyaluronate sodium The 0.1 weight section methylparaben The heterogeneity improvement agent 2 of 0.1 weight **** The heterogeneity improvement agent 30.5 weight section benzalkonium chloride of 0.1 weight **** 0.1 weight section sodium dihydrogenphosphate 0.1 weight section ethanol 7 Weight section POE (60) hydrogenated castor oil 0.1 weight sections perfume 0.1 weight **** The 81.8 weight sections [0020] Face toilet was created according to the [example 3] following formula. That is, the heating dissolution of the formula component was carried out at 80 degrees C, stirring cooling was carried out and face toilet was obtained.

1,3-butanediol 5 Weight section glycerol 5 Weight section sodium chondroitin sulfate The 0.1 weight section methylparaben The heterogeneity improvement agent 4 of 0.1 weight **** 0.5 weight section benzalkonium chloride 0.1 weight sections sodium dihydrogenphosphate 0.1 weight section ethanol 7 Weight section POE (60) hydrogenated castor oil 0.1 weight sections perfume 0.1 weight **** The 81.9 weight sections [0021] The cream was created according to the [example 4] following formula. That is, the heating dissolution of each component of I, RO, and Ha was carried out at 80 degrees C, I was kneaded well, RO was added and diluted, and Ha was added gradually and emulsified. Stirring cooling of this was carried out and the cream was obtained.

I 1,3-butanediol 5 70% maltitol water solution of weight sections 10 Weight section methylparaben The 0.3 weight section butylparaben 0.1 weight section triglycerinediisostearate 4 Weight section RO liquid paraffin 7 Weight section carnauba wax 3 Weight section dimethicone 4 (1c.s.) Weight section Ha water Heterogeneity improvement agent 5 of 66.5 weight **** Heterogeneity improvement agent 6 of 0.5 weight **** 0.5 weight sections hyaluronate sodium The 0.1 weight sections [0022] Foundation was created according to the [example 5] following formula. That is, the heating dissolution of each component of I, RO, and Ha was carried out at 80 degrees C, I was kneaded well, and RO was added and diluted, NI was added and it distributed, and Ha was added gradually and emulsified. Stirring cooling of this was carried out and foundation was obtained.

I 1,3-butanediol 5 70% maltitol water solution of weight sections 10 Weight section methylparaben The 0.3 weight section butylparaben 0.1 weight section triglycerinediisostearate 4 Weight section RO liquid paraffin 7 Weight section carnauba wax 3 Weight section dimethicone 4 (1c.s.) Weight section Ha water 49 The heterogeneity improvement agent 7 of weight **** 0.5 weight section hyaluronate sodium 0.1 weight section NI titanium oxide 8 Weight section talc 3 Weight section sericite 2 Weight section Synthetic Ochre 3 Weight section red ocher 2 Weight section [0023] The hair tonic was created according to the [example 6] following formula. That is, stirring solubilization of the formula component was carried out at the balance lump and the room temperature, and the hair tonic was obtained.

Ethinylestradiol 0.1 weight section capsicum tincture 0.1 weight section menthol The heterogeneity improvement agent 8 of 0.1 weight **** 0.1 weight section ethanol 40 Weight section 1,3-butanediol 5 Weight **** The 54.6 weight sections [0024] Baths were created according to the [example 7] following formula. That is, it lump [balance] and was good for the kneader, the formula component was kneaded, and baths were obtained.

A sodium sulfate 70 Weight section lavender oil 10 Weight section 1,3-butanediol 10 Heterogeneity improvement agent 9 of weight **** 1 Weight section glycerol Nine weight sections [0025] The heterogeneity improvement operation of the skin was measured about the heterogeneity improvement agents 1-9 of the skin of [example 8] this invention. That is, the ultraviolet-rays B exposure of 0.8MED (s) was performed twice to 20 volunteers' overarm, the uneven skin model was created, the specimen was prescribed for the patient here for four weeks, and the gestalt was observed after five weeks. The observations of a gestalt were the heterogeneity of the distribution judging of a low brightness part, the

judgment of melanin distribution, and horny layer exfoliation. the homogeneity of distribution of the low brightness part at the time of the distribution judging of a low brightness part irradiating light to the skin from 45 slant, and incorporating as an image with a CCD camera -- score 2: -- very -- homogeneity, score 1:homogeneity, and score 0.5: -- a little -- homogeneity and score 0: -- it was uneven and judged with the naked eye. Distribution of melanin stripped the horny layer on the cellophane tape, performed the Fontana Masson dyeing and a hematoxylin and eosin stain, observed the melanin distribution for every bottom cell of a microscope with the naked eye, and judged it on the following criteria. Score 2: For homogeneity and 0.5:distribution, homogeneity and 0:distribution are [distribution / homogeneity and score 1:distribution] an ununiformity a little very much. Moreover, the method of exfoliation of a horny layer was also judged on the following criteria to coincidence at this time. Score 2: For homogeneity and the method of 0.5:exfoliation, homogeneity and the method of 0:exfoliation are [the method of exfoliation / homogeneity and the method of score 1:exfoliation] an ununiformity a little very much. A result is shown in Table 1 as an average score. In addition, a specimen is what melted the heterogeneity improvement agent of each skin in the ethanol water solution 50% by 1% of concentration, and control used the ethanol water solution 50%. Moreover, no taking a measure did not perform UV irradiation, and did not prescribe it for the patient at all. This shows that the heterogeneity improvement agent of the skin of this invention is excellent in a heterogeneity improvement operation of the skin.

[0026]

[Table 1]

	低輝度分布	メラニン分布	角層剝離
無処置	1. 4	1. 2	1. 2
コントロール	0. 4	0. 6	0. 5
肌の不均一性改善剤 1	0. 9	0. 9	1. 0
肌の不均一性改善剤 2	1. 0	0. 9	0. 7
肌の不均一性改善剤 3	0. 8	0. 9	0. 8
肌の不均一性改善剤 4	0. 9	0. 8	0. 9
肌の不均一性改善剤 5	0. 8	0. 7	0. 9
肌の不均一性改善剤 6	0. 7	0. 9	0. 8
肌の不均一性改善剤 7	0. 8	0. 7	0. 8
肌の不均一性改善剤 8	0. 9	1. 0	0. 7
肌の不均一性改善剤 9	1. 0	0. 8	0. 9

[0027] The use test was performed using 20 female 1 groups which worry about dullness using the face toilet of the [example 9] example 1. That is, I had face toilet of a specimen applied for evening bis die two months in the morning, and had the improvement of dullness answer by the questionnaire. The comparison group 1 used that to which the comparison group 2 permuted the heterogeneity improvement agent 1 of the skin of an example 1 by the ascorbic acid using what permuted the heterogeneity improvement agent 1 of the skin of an example 1 by hyaluronate sodium using that to which the control group permuted the heterogeneity improvement agent 1 of the skin of an example 1 by water. A result is shown in Table 2. This shows that the cosmetics of this invention are excellent in an improvement operation of dullness.

[0028]

[Table 2]

	著しい改善	改善	やや改善	不変	悪化
実施例 1	9	6	5		
対照群	5	1	5	9	
比較群 1	6	2	4	8	
比較群 2	7	3	2	8	

[0029]

[Effect of the Invention] According to this invention, the material which improves the heterogeneity of the skin and improves dullness can be offered.

[Translation done.]